

ABSTRACT OF THE DISCLOSURE

[0043] A method for etching an organic anti-reflective coating (OARC) using a halogen-free gas chemistry is disclosed. The organic anti-reflective coating (OARC) is etched using a gas mixture comprising at least one of a hydrocarbon-containing gas and an oxygen-containing gas. The method provides high etch selectivity for the organic anti-reflective coating (OARC) over metal layers (e.g., copper (Cu), aluminum (Al), and the like) or dielectric layers (silicon dioxide (SiO₂), and the like).